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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,273	05/25/2006	Kazuyo Terada	4670-0127PUS1	5967
2292 7590 04/17/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER THOMAS, ERIC W				
ART UNIT 2831		PAPER NUMBER		
NOTIFICATION DATE 04/17/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/580,273

**Applicant(s)**

TERADA ET AL.

**Examiner**

Eric Thomas

**Art Unit**

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 5/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 8-9, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by NORITAKE et al. (JP 11-162794).

Noritake et al. disclose a binder for an electric double layer capacitor comprising; a polymer (A), containing an acrylate monomer unit (methyl acrylate - paragraph 5), and having two or more glass transition temperatures (see paragraph 15-17, 20-24 – international search report).

Regarding claim 2, Noritake et al. disclose the polymer (A) is a complex.

Regarding claim 3, Noritake et al. disclose the complex is a fine particle having a core-shell structure obtained by polymerizing stepwise a monomer mixture containing an acrylate monomer.

Regarding claim 4, Noritake et al. disclose an electrode for an electric double layer capacitor comprising the binder of claim 1 and an active material (see example).

Regarding claim 5, Noritake et al. disclose the electrode contains an electroconductivity additive .

Regarding claim 6, Noritake et al. disclose the electric double layer capacitor contains water.

Regarding claim 8, Noritake et al. disclose an electrode for an electric double layer capacitor, wherein the composition for the electric double layer capacitor as claimed in claim 4 is stacked on a current collector.

Regarding claim 9, Noritake et al. disclose a method for producing the electrode for the electric double layer capacitor, comprising the steps of: applying, onto a current collector, a composition for an electric double layer capacitor containing a binder for an electric double layer capacitor comprising the polymer (A), an active material for an electrode, and water, and; then drying the composition, thereby forming an electrode layer on the current collector.

Regarding claim 11, Noritake et al. disclose the capacitor comprises an electrolytic solution, and a separator.

4. Claims 1-6, 8-9, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2003151560 ('560).

'560 discloses a binder for an electric double layer capacitor comprising (paragraphs 1 and 63); a polymer (A), containing an acrylate monomer unit (methyl

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acrylate - paragraph 40), and having two or more glass transition temperatures (see international search report).

Regarding claim 2, '560 discloses the polymer (A) is a complex.

Regarding claim 3, '560 discloses the complex is a fine particle having a core-shell structure obtained by polymerizing stepwise a monomer mixture containing an acrylate monomer.

Regarding claim 4, '560 discloses an electrode for an electric double layer capacitor comprising the binder of claim 1 and an active material (paragraph 63).

Regarding claim 5, '560 discloses the electrode contains an electroconductivity additive.

Regarding claim 6, '560 discloses the electric double layer capacitor contains water.

Regarding claim 8, '560 discloses an electrode for an electric double layer capacitor, wherein the composition for the electric double layer capacitor as claimed in claim 4 is stacked on a current collector.

Regarding claim 9, '560 discloses a method for producing the electrode for the electric double layer capacitor, comprising the steps of: applying, onto a current collector, a composition for an electric double layer capacitor containing a binder for an electric double layer capacitor comprising the polymer (A), an active material for an electrode, and water, and; then drying the composition, thereby forming an electrode layer on the current collector.

Regarding claim 11, '560 discloses the capacitor comprises an electrolytic solution, and a separator.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over NORITAKE et al. (JP 11-162794) in view of JP 09-289142 ('142).

Noritake et al disclose the claim invention except that the electrode dispersion is granulated by a spray drying method.

'142 teaches that electrode dispersions can be granulated by a spray drying method.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the electrode by granulating the electrode dispersion by a spray drying method, since such a modification would improve the electrical properties of the electrode.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over NORITAKE et al. (JP 11-162794) in view of JP 06-196364 ('364).

Noritake et al. disclose the claim invention except that the electrode is produced by the steps of dry-molding the composition for the electric double layer capacitor, and then forming an electrode layer on the current collector.

'364 teaches that (see international search report) electrodes for electric double layer capacitor can be formed by dry molding a composition and then forming an electrode layer on the current collector.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the electrodes of Noritake et al. by the process as taught by '364, since such a modification would form electrodes having low internal resistance.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 7,099,142 – electric double layer capacitor

US 4,327,400 – electric double layer capacitor

US 6,525,923 – electric double layer capacitor

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Thomas whose telephone number is 571-272-1985. The examiner can normally be reached on Monday - Friday 5:30 AM - 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Thomas/  
Primary Examiner, Art Unit 2831